

THE SCHULTZ REFERENCE

It is respectfully suggested that the SCHULTZ reference deserves more careful attention because the specification of SCHULTZ is unequivocal in its reading and meaning. In pertinent part, SCHULTZ is an industrial metal forming device and the patent disclosure claims protection over the combination of two distinct elements. The first element is the forming of uniform "linear impressions"¹ in sheet metal. The second element concerns a progressively bent and uniform "Z-shaped bend"² running parallel to the edge of the sheet metal. There is no such disclosure or claim for protection over any variation of a progressively formed and uniform bend in sheet metal in the present application. Moreover, the SCHULTZ reference uses perspectives and terminology that is confusing when applied to the present invention such that even those versed in the art would have difficulty equating the elements to the present invention, despite the Examiner's inclination to do so.

The SCHULTZ reference should be removed for six reasons. First, every claim listed in SCHULTZ requires the use of a "uniform width of supply strip of sheet metal."³ This element is not required by, nor suggestive of, the present invention. In the present invention, the entire concept revolves around easily adjusting the apparatus to fit distinct pieces of material, and clearly not pieces of metal that are stored on large cold sheet steel forging rolls. Completely opposite the large machinery mentioned in SCHULTZ, the

¹ (74), col. 6, lines 38-39, (See also Fig. 1)

² (60, 66), col. 6, lines 52-56, (See also Fig. 1)

³ col. 6, lines 34-35.

utility in the present invention stems from the fact that, irrespective of the size, shape, and features of the raw sheet material, the Applicant's highly portable invention will find reasonable utility.

Second, the SCHULTZ reference requires the use of various "upper and lower driven shaping rollers"⁴ to progressively and uniformly bend sheet metal as it passes through the large steel forming device. Again, this element is not required by, nor suggestive of, the present invention. Instead, the present invention discloses not the uniform bending of metal—only the cutting of metal. The present invention uses predetermined and easily adjustable guides to preferentially mark sheet material at opposite sides. This preferential marking serves as a visual guide to thereafter bend the sheet material using a different machine. SCHULTZ simply does not teach or even suggest how to create cuts in the sheet material to thereafter serve as visual markers at opposite ends of the sheet material.

Third, the SCHULTZ reference contemplates gradually feeding sheet metal strips along a "path"⁵ so that the sheet metal is progressively bent into a "Z-shaped bend."⁶ Again, it is fundamental to recognize that the present invention does not contemplate feeding material through a continuous rolling or forming apparatus.

⁴ col. 6, lines 46-47

⁵ col. 6, line 36, 44

⁶ col. 6, line 55

Fourth, the Examiner appears to name the "slits" of the present invention as the "longitudinal strip" disclosed in SCHULTZ.⁷ However, the Examiner's comparison of "slits," as disclosed by the present invention with the "longitudinal strip," (62) of SCHULTZ is likewise inappropriate because the "longitudinal strip" is a structural necessity that is merely formed as a result of the "linear impressions" (74); it is simply a deformation caused as the sheet metal passes through the SCHULTZ device.⁸ In contrast, the present invention affirmatively discloses the use of "slits" as an actual element, *i.e.*, a reliable visual guide for bending material using other apparatus.

Fifth, the present invention is directed towards an easily movable device useful for site-forming different material. Indeed, one of ordinary skill in the art would not reasonably contemplate moving the invention of SCHULTZ without the use of large machinery or trucks.

Sixth, a fundamental element of the present invention is that the user is able to easily adjust the device to achieve the desired bend. SCHULTZ does not suggest or teach a device that is easily adjustable. There is little understanding of how one could adjust the machinery disclosed in SCHULTZ. As such, one of ordinary skill in the art would not envision combining the utility of the present invention based on the teachings in SCHULTZ.

⁷ (62) col. 6, line 41, (See also Fig. 1)

⁸ col. 6, lines 40-43

THE McCLURE REFERENCE

While not altogether clear from the antiquated terminology and sparsely configured drawing, the McCLURE reference discloses a combined bending and cutting machine complete with cams, plungers, anti-friction members, dies, diagonally disposed recesses, and levers. The machine is designed to cut and bend metal bars and tubing.⁹ There is no mention of sheet material, nor is there any mention of adjustable elements which are capable of anything other than accepting larger sizes of metal bars.¹⁰ Instead, there is only the disclosure of a shearing device that is only capable of bending or cutting what appears to be tubular shaped metal rods. Adjustment of the cut depends not on the machine but on the desire of the user to continue pushing forth a lever, known as an "operating handle." (29).

IT IS IMPROPER TO COMBINE SCHULTZ AND McCLURE

There is no teaching or suggestion to combine the SCHULTZ and McCLURE references. In fact, there would be no need for, or utility achieved by, the combination of the shearing cutting device of McCLURE with the roll-forming device of SCHULTZ because the two concern entirely different embodiments of metal. Granted, it is well-known in the art to cut sheet metal using shearing forces similar to that mentioned in McCLURE; however, there is no suggestion to use highly adjustable metal cutting elements to mark sheet material in a manner as to facilitate visual markers upon the sheet material. These markers are useful in connection with additional sheet forming machinery. But the core

⁹ Col 1, lines 10-16

issue is that SCHULTZ concerns sheet metal; McCLURE concerns tubular bars. It is difficult to imagine how one of ordinary skill in the art would couple the two devices. As such, it is impossible to find any of the required §103 language within either reference that provides the necessary suggestion that the references revealed the present invention in a way that establishes a reasonable expectation of success.

CONCLUSION

The teachings of the SCHULTZ reference are entirely different than those of the present invention. Naturally then, SCHULTZ's implementation of terminology such as "longitudinal strip" and "linear impressions" cannot be easily applied to the present invention. One of ordinary skill in the art would not equate the same terminology to the present invention's use of "slits."

Moreover, SCHULTZ discloses a device in which uniform width of roller bound sheet metal is fed through a series of intricate and complex rollers thereby progressively forming a uniform Z-shaped bend with mere perpendicular linear indentations. In order to adjust the cumbersome and weighty device, invariably the user must reconfigure each of the rollers and stamping station because the location of the Z-shaped bend is a function of the gap created by the linear impression produced by the stamping station. Clearly, the SCHULTZ reference teaches a manufacturing tool.

McCLURE discloses a shearing device that is not adjustable and does not concern sheet material. Instead, its utility resides only in forming metal bars or tubular members.

¹⁰ See recesses nominated 30, 31; lines 105-110